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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/491,969	01/27/2000	Ronald Spangler	ACX-128	9298

7590

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EXAMINER

TRINH, MINH N.

ART UNIT	PAPER NUMBER
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3729

DATE MAILED: 02/27/2004

16

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/491,969

Applicant(s)

SPANGLER ET AL.

Examiner

Minh Trinh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-39 is/are pending in the application.
- 4a) Of the above claim(s) 10, 24, 27-29, 33-35, 38 and 39 ~~is/are~~ are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9, 11-23, 25, 26, 30-32, 36 and 37 ~~is/are~~ are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.



## **DETAILED ACTION**

### ***The Title***

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. The following title is suggested: "The Vibration Control System", or the like.

### ***Claim Objections***

2. "activities" (claim 1, line 9) appear to be incorrect, should be: --activates--.
3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. Claims 1, 3, 5, 6, 7, 20, 25-26, 30-32 and 36-37 are also rejected under 35 U.S.C. 102(a) as being anticipated by Gonzalez et al (US 5,285,995). Gonzalez et al discloses a control system for fabricating system comprising an actuator assembly 20; a sensor 30; a circuit in electrical communication with said actuator assembly and said sensor (as the circuitry diagram shown in Fig. 7); wherein upon the detection of said at least one parameter of displacement by said sensor, said sensor signals said circuit, which, in response, activated said actuator assembly to control vibration (as described in col. 4, and col. 6, lines 50-68, col. 8, lines 65-68).

As applied to claims 3, 5 and 6-7, Gonzalez et al disclose at least two actuator 20's (see Fig. 1), and at least two sensors 16's (see Fig. 1). Regarding the limitation

recites: "...being capable of producing at least two different signals" (claim 7, lines 1-2) is functionally intended use. Note Gonzalez et al meet every aspect structure limitations of the present invention, therefore his structure is capable of fulfillment such function as described above (i.e., capable of producing at least two different signals).

Limitation of claim 20 is also satisfied by Gonzalez et al (see Fig. 1, which shows the actuator 20 being detachable connected on a lower surface 26).

Limitations of claims 25, 26, 30-32 and 36-37 are also met as set forth above paragraph.

Noted that regarding the limitation recites: "for use with a fabricating system" (see preamble of claim 1), "an actuator for controlling vibration" (claim 1, line 4), "a sensor for detecting at least one parameter of displacing" and many others are consider to be intended use limitations which do not further limit the claimed structure i.e., control system as claimed by the present application. Because Gonzalez et al meet every aspect structure limitations of the above claims, therefore Gonzalez et al as applied and relied above is capable of fulfill such intended use as discussed above.

5. Claims 2, 9, 11-15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzalez et al.

Regarding claim 2, Gonzalez et al does not teach the exact actuator as recited in claim 2. However, the actuator assembly comprising an actuator of a strain actuator, an electro active strain actuator, a piezoelectric strain actuator, etc. are considered to be old and well known in the art. One ordinary having skill in the art would known to use at least one of the above feature on to a system base on the application configurations

and requirements. Furthermore, it would have been an obvious matter of design choice to choose any desired type of the associated actuators or the combination of a number of actuators for monitoring and controlling vibration, since applicant has not disclosed that the type of strain actuator as recited in claim 2, lines 2-4 are critical, patentably distinguishing features and it appears that the invention would perform equally well with the actuator assembly as shown in the prior art reference 20 (see Figs. 1 and 7).

As applied to claim 9, regarding "said fabrication system is a system for fabricating electronic components . . . and thin film devices." (see claim 9). It would have been an obvious matter of design choice to choose any desired type of fabrication process associate with the vibration control system, since applicant has not disclosed that the particular fabrication system as described in details above is critical, patentably distinguishing features and it appears that the invention would perform equally well with the fabrication system as taught by the prior art reference (see Fig.1). Further, the limitation of " for fabricating electronic components, . . ." (see claim 9, line 2-4) is intended use which does not further limit the claimed structure.

Limitations of claims 11-12 are also met by Gonzalez et al (note that there is no structure different between the application and the prior art, therefore the prior art is capable of perform the same functional intended use as recited in these claims, i.e., increasing the accuracy of the system . . .(see limitation of claims 11-12).

As applied to claims 13-15, note that limitations recited in these claims such as "wherein the vibration is produced . . ." etc., are not structure limitation and it appear that the applied art structure is designed to prevent or stop the similar vibration as

described in these claims. Further, it is not clear what exactly features upon which applicant relies (i.e., the vibration is produced . . .) is not structure limitations.

As applied to claim 19, it would have been an obvious matter of design choice to choose any desired part that is associated with the fabricating system since applicant has not disclosed that the claimed part selected from the available list such as a step motor, or the like would solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with the pneumatic actuator taught by each of the prior art references.

6. Claims 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzalez et al in view of Makinauchi (US 5,446,519).

As applied to claim 16, Gonzalez et al as modified an applied above do not teach the fabrication system as recited in claim 16, Makinauchi teaches the limitation associated with claim 16, which including an optical (or lens) assembly 17, support member 14A and B, wafer stage 1 (see Fig. 1). Therefore, it would have been an obvious to one ordinary having skill in the art at the time the invention was made to modify the invention of Gonzalez et al by employing the Makinauchi teaching as described above in order to form a desired control system which meets manufacturing configurations and requirements.

Limitations of claims 17-18 are also met as described above.

7. Claims 21 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gonzalez et al in view of Takahashi et al (US 5,579,084). Gonzalez et al do not teach the electrical connection coupling the vibration control system to the fabrication system as described in details in claim 21. Takahashi et al teach the above feature (see Fig. 1, reference 13). Therefore, it would have been obvious to one ordinary having skill in the art at the time the invention was made to modify the invention of Gonzalez et al by employing the Takahashi et al teaching as described above in order to form a desired control system which meets manufacturing configurations and requirements. Note that regarding limitation recites "... said signal being selected from the group of ... fault error signal" (see claim 21, lines 4-5) are not structure limitations which do not further limit the claimed structure.

Limitation of claim 23 is also satisfied as discussed above. Further, It is also noted that there is no structure difference between the prior art as compared to the present application, therefore the prior art structure is capable of performing the intended use as recited in this claim.

### ***Response to Arguments***

8. Applicant's arguments with respect to rejected claims 1-9, 11-23, 25-26, 30-32, 36 and 37 have been considered but are moot in view of the new ground(s) of rejection.

9. This application contains non-elected claim 10, 24, 27-29, 33-35, 38 and 39 drawn to an invention nonelected with traverse in Paper No. 15. A complete reply to this

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rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

***Allowable Subject Matter***

10. Claim 4 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Minh Trinh whose telephone number is (703) 305-2887. The examiner can normally be reached on Monday -Thursday 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on (703) 308-1789. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



Examiner Group 3729

Mt  
2/19/2004